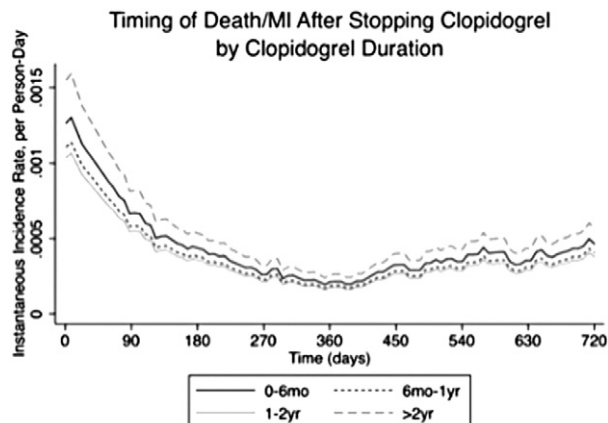


Results: There were 603 patients who underwent saphenous vein graft PCI; 411 were event-free at the time of clopidogrel cessation and comprised the study cohort. The incidence rate ratio (95% CI) for death or myocardial infarction in the 0-90 day interval compared with the 91-365 day interval was 2.58 (1.64-4.07). Similar results were observed over a broad range of clopidogrel treatment durations (<6 months, 6 months-1 year, 1-2 years, or >2 years). The results were also consistent across subgroups including gender, stent type, stent diameter, study period, and diabetes status. The risk-adjusted instantaneous incidence rate for death or MI was greatest early after clopidogrel cessation, regardless of clopidogrel duration (see figure).

Conclusions: A clustering of events was observed in the initial 0-90 days after clopidogrel cessation in all treatment durations of clopidogrel investigated after SVG PCI.



TCT-730

Hospitalization Costs Of Acute Coronary Syndrome Patients Undergoing Percutaneous Coronary Intervention: Comparison Between Clopidogrel And Prasugrel Patients In A US Hospital Database

Jay Bae¹, Frank Ernst², Douglas Faries¹, Craig Lipkin², Chad Moretz², Zhenxiang Zhao¹

¹Eli Lilly and Company, Indianapolis, IN, ²Premier Research Services, Charlotte, NC

Background: Evidence on the use of newer antiplatelet agents and their cost implications remains scarce. Previous research has shown a shorter average hospital length of stay for prasugrel-treated patients compared to clopidogrel-treated patients. We analyzed a large geographically diverse database from the US and compared cost of hospitalization for patients with acute coronary syndrome (ACS) who have undergone percutaneous coronary intervention (PCI) and who received either clopidogrel or prasugrel.

Methods: Using a large representative US database maintained by PREMIER, we analyzed patient characteristics and total hospitalization costs during the index (first) hospitalization among ACS-PCI patients treated with clopidogrel or prasugrel between July 2009 and June 2011. Analysis included patients treated with prasugrel who were on-label and clopidogrel-treated patients who would have been eligible for prasugrel treatment per the label. Observed costs were analyzed unadjusted and adjusted for baseline differences using a generalized linear model with a gamma distribution and log link function with propensity score stratification.

Results: Data were available for 75,315 patients who received clopidogrel and 9,483 patients who received prasugrel during their hospitalization. The observed mean hospitalization costs (SD) for clopidogrel and prasugrel, respectively, were \$17,519 (\$2,548) and \$17,136 (\$2,562). Mean costs for clopidogrel and prasugrel recipients, respectively, were \$16,937 (\$2,162) and \$16,664 (\$2,137) for STEMI, \$17,926 (\$2,747) and \$17,511 (\$2,849) for NSTEMI, and \$17,900 (\$2,665) and \$17,393 (\$2,676) for UA (all comparisons, $P < 0.001$). The adjusted results showed prasugrel-treated patients cost as much as \$882 less than clopidogrel-treated patients ($P < 0.001$) during the index hospital stay.

Conclusions: Prasugrel-treated patients used fewer health care resources compared to clopidogrel-treated patients during the index hospital stay, as measured by hospital costs. Similar results were obtained after adjusting for patient demographics and clinical characteristics. The potential for unmeasured confounder bias is a limitation in this real-world observational research.

TCT-731

Switching from Clopidogrel to Prasugrel in Patients Undergoing Coronary Stent Implantation

Guido Parodi¹, Benedetta Bellandi¹, Vincenzo Comito¹, Renato Valenti¹, Nazario Carrabba¹, Rossella Marcucci¹, Angela Migliorini¹, Erica Ramazzotti¹, Rosanna Abbate¹, David Antoniucci¹
¹Careggi Hospital, Florence, Italy

Background: The use of any thienopyridine within 5 days before enrollment was an exclusion criteria for the TRITON TIMI 38 Trial. There are no clinical data concerning the safety of switching from clopidogrel to prasugrel in patients undergoing coronary stenting. However, in the daily activity, clinicians face the decision of switching high-risk patients from clopidogrel to prasugrel. We sought to evaluate in-hospital events in high-risk patients undergoing coronary stent implantation and prasugrel therapy with (SWITCH group) or without (NAÏVE group) previous clopidogrel therapy.

Methods: From March 2010 to December 2011 a total of 718 patients aged 68 ± 11 years (32% older than 75 years) underwent stent implantation and received prasugrel therapy (77 with a 60 mg loading dose). Of these, 370 (51%) patients have received clopidogrel before prasugrel therapy: high residual platelet reactivity (HRPR) on clopidogrel had been documented in 258 patients by LTA (ADP 10).

Results: Seventy-seven SWITCH group patients received a 60 mg prasugrel loading dose. NAÏVE group patients were more likely to have ST-elevation myocardial infarction (60% vs 15%) and a younger age (mean age 66 vs 70 years). There was no difference in BARC in-hospital bleeding (4.1% vs 4.9%; $p = 0.578$) between the SWITCH and NAÏVE groups as well as in mortality, acute stent thrombosis, reinfarction and stroke rates. At multivariable analysis, independent predictors of in-hospital bleeding were female gender (OR 3.53 [1.34-9.35], $p = 0.011$) and diabetes (OR 3.22 [1.23-8.37], $p = 0.017$), but switching therapy did not. This result was confirmed after switching propensity score adjustment (c-statistic 0.77; Hosmer-Lemeshow test $p = 860$). In patients with HRPR on clopidogrel, prasugrel decreased platelet aggregation from $72 \pm 11\%$ to $43 \pm 16\%$ ($p < 0.001$).

Conclusions: Switching from clopidogrel to prasugrel in high-risk patients undergoing coronary stent implantation seems to be not associated with any short term major concerns regarding prasugrel safety and efficacy.

TCT-732

Paraoxonase 1 Gene Polymorphism Does Not Affect Clopidogrel Response Variability But Is Associated with Clinical Outcome After Percutaneous Coronary Intervention

Jin Joo Park¹, Kyung Woo Park¹, Jeehoon Kang¹, Ki-Hyun Jeon¹, Si-Hyuck Kang¹, Jung-Kyu Han¹, Sang Eun Lee¹, Han-Mo Yang¹, Hae-Young Lee¹, Hyun-Jae Kang¹, Bon-Kwon Koo², Byung-Hee Oh¹, Young-Bae Park¹, Hyo-Soo Kim²

¹Department of Internal Medicine and Cardiovascular Center, Seoul National University Hospital, Seoul, Korea, Republic of, ²Department of Internal Medicine and Cardiovascular Center, Seoul National University Hospital, Seoul, South Korea

Background: Paraoxonase (PON) is a high-density-lipoprotein (HDL) associated enzyme with antioxidative and anti-atherogenic property. Its function is associated with coronary artery disease and its activity genetically controlled. We evaluated whether genetic variation of PON-1 is associated with clinical outcome in a large cohort of Korean patients with drug-eluting stents implantation.

Methods: A total of 1676 patients with drug-eluting stent implantation were enrolled in the prospective CROSS-VERIFY cohort from June 2006 to June 2010. We genotyped the PON1-Q192R gene, measured clopidogrel on-treatment platelet reactivity (OPR), and analyzed lipid profiles. The primary endpoint was the composite of cardiac death, myocardial infarction, and stent thrombosis at 12 months.

Results: PON-1 genotyping data were available in 1336 patients. Since the Q-allele is associated with decreased PON-activity, we analyzed the outcome between patients with QQ/QR (815 patients, 61%) and those with RR-genotype (521 patients, 39%). After adjustment for common cardiac risk factors, the QQ/QR-genotype was an independent predictor of the primary thrombotic endpoint with an 11-fold increased risk (HR 11.5, 95% CI: 1.54-86.6), but not repeat revascularization (HR 1.13, 95% CI: 0.78-1.62). The QQ/QR-genotype was not associated with OPR (QQ/QR: 231 ± 86 PRU vs. RR 236 ± 82 PRU, $p = 0.342$) but higher small-dense LDL levels (1.20 ± 0.12 mg/dL vs. 0.76 ± 0.15 mg/dL, $p = 0.027$). The increased risk of thrombotic outcomes was more profound in acute coronary syndrome (ACS) patients compared with non-ACS patients.

Conclusions: PON1 Q-allele is an independent predictor of worse cardiovascular outcome independent of platelet function and is associated with significantly higher levels of small dense LDL-C. PON-1 genotype may serve as a novel genetic risk factor for adverse events after PCI.